# **WEST Search History**

DATE: Monday, April 28, 2003

Set Name side by side	Query	Hit Count	Set Name result set
DB=DV	VPI; PLUR=YES; OP=OR		
L14	9614666	2	L14
L13	09/513785	0	L13
L12	09513785	0	L12
DB=US	PT; PLUR=YES; OP=OR		
L11	09513785	0	L11
L10	09/513785	1	L10
DB = EP	AB; PLUR=YES; OP=OR		
L9	(electrode) and (nickel adj hydroxide) and (cobalt adj hydroxide) and (battery or electrochemical) and oxidation	3	L9
DB=DWPI; PLUR=YES; OP=OR			
L8	(electrode) and (nickel adj hydroxide) and (cobalt adj hydroxide) and (battery or electrochemical) and oxidation	11	L8
DB=USPT; $PLUR=YES$ ; $OP=OR$			
L7	L1 and carbonate.clm.	18	L7
L6	L1 and carbonate	52	L6
DB=EPAB; $PLUR=YES$ ; $OP=OR$			
L5	9637436	1	L5
DB=DWPI; $PLUR=YES$ ; $OP=OR$			
L4	9637436	1	L4
L3	19619235	1	L3
DB=USPT; PLUR=YES; OP=OR			
L2	((electrode) and (nickel adj hydroxide) and (cobalt adj hydroxide) and (battery or electrochemical) and oxidation).clm.	11	L2
L1	(electrode) and (nickel adj hydroxide) and (cobalt adj hydroxide) and (battery or electrochemical) and oxidation	155	L1

END OF SEARCH HISTORY



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## **End of Result Set**

	Generate Collection	Print
ш	Cenerate Collection	FORK

L5: Entry 1 of 1

File: EPAB

Nov 28, 1996

PUB-NO: WO009637436A1

DOCUMENT-IDENTIFIER: WO 9637436 A1

TITLE: SPHEROIDALLY AGGLOMERATED BASIC COBALT (II) CARBONATE AND SPHEROIDALLY AGGLOMERATED COBALT (II) HYDROXIDE, PROCESS FOR THEIR PRODUCTION AND THEIR USE

PUBN-DATE: November 28, 1996

INVENTOR-INFORMATION:

NAME	COUNTRY
GOERGE, ASTRID	DE
MEESE-MARKTSCHEFFEL, JULIANE	DE
NAUMANN, DIRK	DE
OLBRICH, ARMIN	DE
SCHRUMPF, FRANK	DE

## ASSIGNEE-INFORMATION:

NAME	COUNTRY
STARCK H C GMBH CO KG	DE
GOERGE ASTRID	DE
MEESE MARKTSCHEFFEL JULIANE	DE
NAUMANN DIRK	DE
OLBRICH ARMIN	DE
SCHRUMPF FRANK	DE

APPL-NO: EP09602050 APPL-DATE: May 14, 1996

PRIORITY-DATA: DE19519326A (May 26, 1995)

INT-CL (IPC): C01 G 51/06; C01 G 51/04

EUR-CL (EPC): C01G051/04; C01G051/06, H01M004/52

#### ABSTRACT:

CHG DATE=19990617 STATUS=0>The present invention relates to basic cobalt (II) carbonate, agglomerated from fine primary particles, of the general composition Cofound(OH)2!afoundCO3!1-a with 0.1

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L8: Entry 3 of 11

File: DWPI

Nov 12, 2002

DERWENT-ACC-NO: 2000-603069

DERWENT-WEEK: 200275

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TITLE: Coated <u>nickel hydroxide</u>, used especially as positive active material in rechargeable alkaline <u>batteries</u>, has an oxidation stable <u>cobalt hydroxide</u> coating treated with weak oxy-acid anions

INVENTOR: ERB, M; MEESE-MARKTSCHEFFEL, J; OLBRICH, A; STOLLER, V

PATENT-ASSIGNEE:

ASSIGNEE

CODE

STARCK GMBH & CO KG H C

STARN

PRIORITY-DATA: 1999DE-1010461 (March 10, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 2002538072 W	November 12, 2002		020	C01G053/04
DE 19910461 A1	September 14, 2000		007	C01G053/04
WO 200052988 A2	September 14, 2000	G	000	C01G053/04
AU 200034259 A	September 28, 2000		000	C01G053/04
CZ 200103253 A3	December 12, 2001		000	H01M004/32
EP 1166377 A2	January 2, 2002	G	000	H01M004/32
CN 1343377 A	April 3, 2002		000	H01M004/32
KR 2002007320 A	January 26, 2002		000	H01M004/32

DESIGNATED-STATES: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI

APPLICATION-DATA:

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L9: Entry 2 of 3

File: EPAB

May 17, 1996

PUB-NO: WO009614666A1

DOCUMENT-IDENTIFIER: WO 9614666 A1

TITLE: ENHANCED NICKEL HYDROXIDE POSITIVE ELECTRODE MATERIALS FOR ALKALINE

RECHARGEABLE ELECTROCHEMICAL CELLS

PUBN-DATE: May 17, 1996

INVENTOR-INFORMATION:

NAME

COUNTRY

OVSHINSKY, STANFORD R FETCENKO, MICHAEL A FIERRO, CRISTIAN GIFFORD, PAUL R CORRIGAN, DENNIS A

BENSON, PETER

MARTIN, FRANKLIN J

ASSIGNEE-INFORMATION:

NAME

OVONIC BATTERY CO

COUNTRY

US

APPL-NO: US09513785

APPL-DATE: October 25, 1995

PRIORITY-DATA: US33345794A (November 2, 1994)

INT-CL (IPC):  $\frac{\text{H01}}{\text{H01M004/32}}$ ;  $\frac{\text{H01}}{\text{H01M004/52}}$ EUR-CL (EPC):  $\frac{\text{H01M004/32}}{\text{H01M0004/52}}$ 

### ABSTRACT:

CHG DATE=19990617 STATUS=O>A positive electrode material comprising particles (1) including at least one electrochemically active hydroxide and a substantially continuous, uniform encapsulant layer (4) surrounding the particles of positive electrode material. The encapsulant layer is formed from a material which, upon oxidation during processing or charging of the electrode, is convertible to a highly conductive form and upon subsequent discharging of the electrode does not revert to its previous form. Preferably, the electrochemically active hydroxide includes at least nickel hydroxide. The encapsulant layer is preferably formed from at least cobalt hydroxide or cobalt oxyhydroxide and is formed by precipitation from a cobalt salt solution, which can be a cobalt sulfate solution. Electrodes which include the electrochemically active material as well as a precipitation process for forming the material are disclosed.

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
JP2002538072W	February 28, 2000	2000JP-0603492	
JP2002538072W	February 28, 2000	2000WO-EP01667	
JP2002538072W		WO 200052988	Based on
DE 19910461A1	March 10, 1999	1999DE-1010461	
WO 200052988A2	February 28, 2000	2000WO-EP01667	
AU 200034259A	February 28, 2000	2000AU-0034259	
AU 200034259A		WO 200052988	Based on
CZ 200103253A3	February 28, 2000	2000WO-EP01667	
CZ 200103253A3	February 28, 2000	2001CZ-0003253	
CZ 200103253A3		WO 200052988	Based on
EP 1166377A2	February 28, 2000	2000EP-0912525	
EP 1166377A2	February 28, 2000	2000WO-EP01667	
EP 1166377A2		WO 200052988	Based on
CN 1343377A	February 28, 2000	2000CN-0804768	
KR2002007320A	September 8, 2001	2001KR-0711422	

INT-CL (IPC):  $\underline{\text{C01}}$   $\underline{\text{G}}$   $\underline{\text{53}}/\underline{\text{04}}$ ;  $\underline{\text{C09}}$   $\underline{\text{C}}$   $\underline{\text{1}}/\underline{\text{00}}$ ;  $\underline{\text{H01}}$   $\underline{\text{M}}$   $\underline{\text{4}}/\underline{\text{32}}$ ;  $\underline{\text{H01}}$   $\underline{\text{M}}$   $\underline{\text{4}}/\underline{\text{52}}$ 

ABSTRACTED-PUB-NO: DE 19910461A

BASIC-ABSTRACT:

NOVELTY  $\frac{-\text{ Nickel hydroxide has an oxidation}}{\text{with weak oxy-acid anions.}}$  stable cobalt(II) hydroxide coating

DETAILED DESCRIPTION - A novel coated <u>nickel</u> hydroxide has an oxidation stable, pastel green colored cobalt (II) hydroxide coating which exhibits no change after 4 weeks storage in atmospheric air. An INDEPENDENT CLAIM is also included for production of the above coated <u>nickel</u> hydroxide by treating a <u>cobalt</u> hydroxide coated, optionally doped <u>nickel</u> hydroxide with a weak inorganic oxy-acid selected from aluminate, borate, carbonate, manganate, molybdate, niobate, phosphate, silicate, tantalate, vanadate and tungstate, oxalate and their alkali metal salts.

USE - The coated  $\underline{\text{nickel hydroxide}}$  is used as  $\underline{\text{electrode}}$  material in secondary  $\underline{\text{batteries}}$  (claimed), especially as positive active material in rechargeable alkaline  $\underline{\text{batteries}}$ .

ADVANTAGE - The coated <u>nickel hydroxide</u> has a high <u>oxidation</u> stability, e.g. less than 0.5% conversion of Co (II) into Co (III) after at least 6 months storage in air. The solubility of the cobalt (II) hydroxide coating in alkaline <u>battery</u> electrolytes is unaffected so it can form a three-dimensional highly conductive network using a minimal quantity of cobalt even without the need for a further conductivity additive.

CHOSEN-DRAWING: Dwg.0/1

TITLE-TERMS: COATING NICKEL HYDROXIDE POSITIVE ACTIVE MATERIAL RECHARGE ALKALINE BATTERY OXIDATION STABILISED COBALT HYDROXIDE COATING TREAT WEAK OXY ACID ANION

DERWENT-CLASS: L03 X16

CPI-CODES: L03-E01B4;

EPI-CODES: X16-B01A; X16-E01C1;

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C2000-180595 Non-CPI Secondary Accession Numbers: N2000-446233